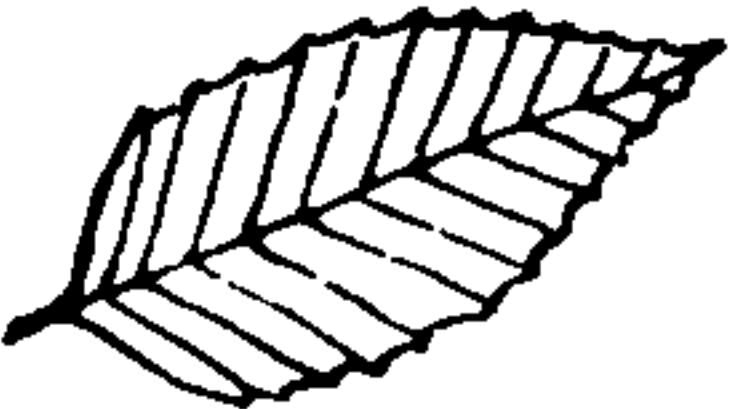












C. Leaves Alternate and Simple (Continued)

BEECH <i>Fagus grandifolia</i>		Leaves 3-6" long, shiny, pointed, tapered base, straight veined, each vein ending in a sharp tooth on margin; seeds edible, contained in a spiny bur; bark silver-gray, smooth.
WHITE OAK <i>Quercus alba</i>		Leaves 5-9" long, with 5-9 rounded or wavy lobes, and shallow or deep rounded spaces in between; acorn covered one-third or less by cup; bark ash-gray to light brown, flaky.
BUR OAK <i>Quercus macrocarpa</i>		Leaves 6-12" long, lobes rounded, upper half of leaf broad, deeply cut near middle; acorn covered one-half or more by bur-fringed cup; bark brown or gray with long vertical ridges.
RED OAK <i>Quercus rubra</i>		Leaves 5-9" long, dull, lobes bristle-tipped, generally extending about half way to center; acorn covered one-quarter or less by shallow cup; bark brown to black, ridges flattened, smooth on upper trunk, inner bark pink.
BLACK OAK <i>Quercus velutina</i>		Leaves 5-7" long, shiny, lobes bristle-tipped, variable in length, but usually extending more than half way to center; acorn covered about one-third by loose-scaled cup, bark black, ridges rough, rounded; inner bark yellow.
PIN OAK <i>Quercus palustris</i>		Leaves 3-6" long, shiny, lobes bristle-tipped, variable in length, often extending nearly to center; acorn enclosed only at base by flat cup; bark black, shallowly grooved or smooth; branches slender, lower ones horizontal or drooping.

D. Leaves Alternate and Compound

SHAGBARK HICKORY <i>Carya ovata</i>		Leaves composed mostly of 5 tapered, finely toothed leaflets, the three upper ones largest; fruit 1-2" in diameter, husk thick, separating into 4 sections, nut edible; bark light gray, with loosely attached outcurving stripes.
BITTERNUT HICKORY <i>Carya cordiformis</i>		Leaves composed of 7-9 tapered, finely toothed leaflets, more or less equal in size; fruit about 1" in diameter, husk thin, opening only half way, nut bitter, bark gray, tight, with narrow, flat interlacing ridges.
BLACK WALNUT <i>Juglans nigra</i>		Leaves 1-2" long, composed of 15-23 finely toothed leaflets; fruit 1 1/2-2" in diameter, containing an edible nut; bark with interlacing, rounded ridges, deep brown, chocolate brown when shaved.
BLACK LOCUST <i>Robinia pseudoacacia</i>		Leaves composed of 7-19 oblong, blunt, smooth margined leaflets; twigs with short prickles; flowers white, fragrant, in drooping clusters; seeds in short, flat pods; bark thick, coarse, dark reddish brown.
HONEY LOCUST <i>Gleditsia triacanthos</i>		Leaves often branched into several stems each with 15-30 leaflets, 1-2" long, minutely toothed; seeds in a flat, twisted reddish-brown pod, 12-18" long; bark gray, broken into broad flat plates; thorns on branches and trunk. (A thornless variety is commonly planted.)



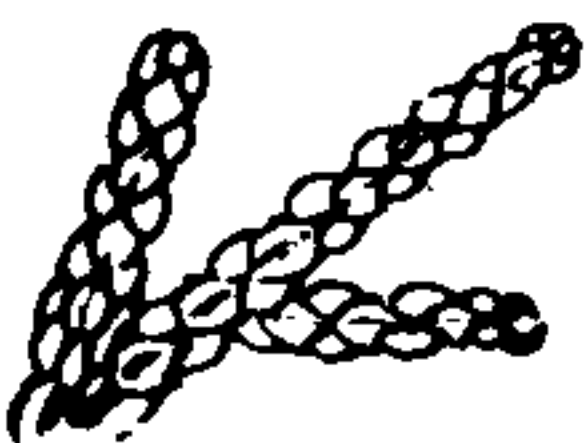

MICHIGAN DEPARTMENT OF NATURAL RESOURCES FOREST MANAGEMENT DIVISION SIMPLE KEY TO MICHIGAN TREES

I. Conifers or Evergreens

A. Leaves Like Needles

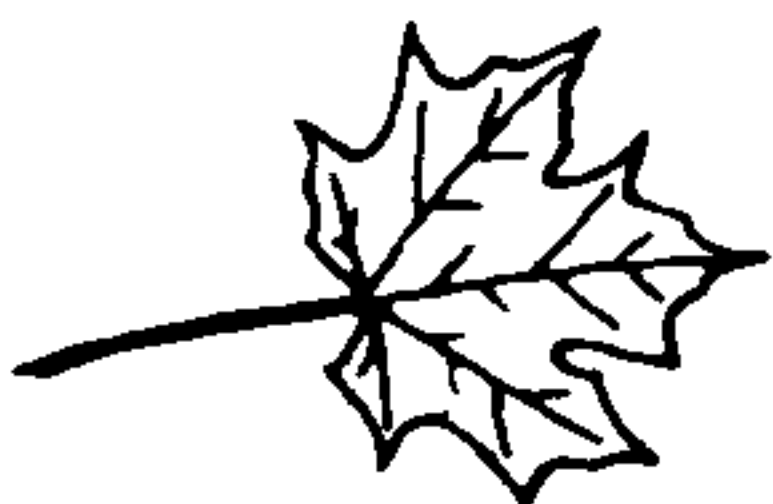




WHITE PINE <i>Pinus strobus</i>		Needles 5 in a cluster, 3-5" long, blue-green, soft; cones 4-8" long, with flexible scales; bark on young trunks smooth, greenish-gray, on old trunks gray and deeply furrowed; branches whorled.
RED PINE <i>Pinus resinosa</i>		Needles in pairs, 4-8" long, straight, flexible; cones egg-shaped, 2" long; bark reddish-gray to red, flaky; branches whorled. (AUSTRIAN PINE - <i>P. nigra</i> : needles same length as red pine, stiff, sharp, twisted; bark gray-black; not native.)
JACK PINE <i>Pinus banksiana</i>		Needles in pairs, 1-1 1/2" long, often twisted; cones 1-2" long, lopsided, remaining for many years; bark brown to black, scaly or furrowed. (SCOTCH PINE - <i>P. sylvestris</i> : needles slightly longer than jack pine; bark orange-red, not native.)
TAMARACK <i>Larix laricina</i>		Needles light blue-green, soft, single along new twigs, in clusters on short spurs on older branchlets; needles drop in autumn, spurs remain; cones 1/2" long, erect; bark reddish-brown, scaly. Also called larch.
BALSAM FIR <i>Abies balsamea</i>		Needles fragrant, flattened, blunt, 1/2 to 1 1/4" long, not stalked, two whitish parallel lines underneath, lying flat or up-curved; bark ash-gray, smooth, containing pitch blisters; top of tree spire-like; branches whorled.
HEMLOCK <i>Tsuga canadensis</i>		Needles 1/2" long, flat, blunt, short-stalked, two whitish parallel lines underneath; cones 1/2" long, hanging at ends of twigs; bark cinnamon brown, deeply grooved on large trees.
SPRUCE <i>Picea species</i>		Needles 1/4 to 3/4" long, L-angled, sharp, on raised bases; bark scaly. (BLACK SPRUCE - <i>P. mariana</i> : cones nearly round, 3/4" in diameter. WHITE SPRUCE - <i>P. species glauca</i> : cones 1-2" long. NORWAY SPRUCE - <i>P. abies</i> : cones 4-6" long; not native.)

B. Leaves Like Scales




NORTHERN WHITE CEDAR <i>Thuja occidentalis</i>		Leaves small, flattened, overlapping scales, fragrant when crushed; cones 1/2" long, erect; bark gray-brown with narrow, interlacing ragged ridges. Also called arborvitae. Many ornamental varieties.
RED CEDAR <i>Juniperus virginiana</i>		Leaves small, overlapping, tight or sharp-tipped scales; fruit a pea-sized blue berry; bark reddish brown, shreddy. Also called juniper. Many ornamental varieties.

II. Broadleaves or Deciduous Trees

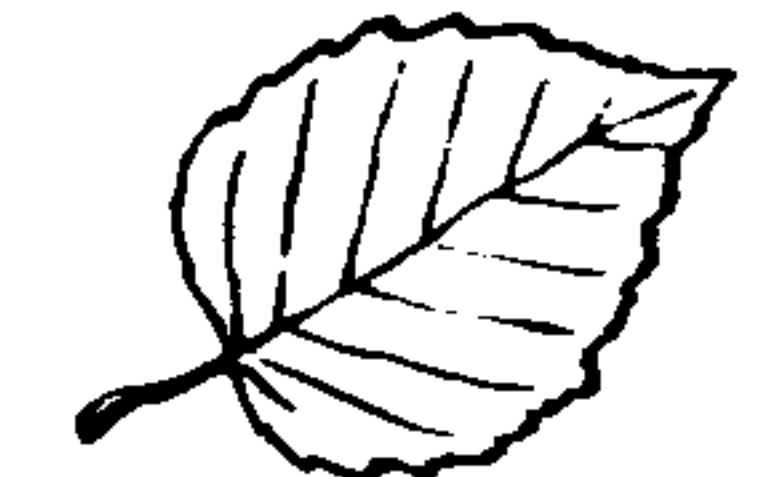

A. Leaves Opposite and Simple

SUGAR MAPLE <i>Acer saccharum</i>		Leaves 3-5" long, as wide or wider, with 5 (or 3) pointed lobes, scattered secondary points along margin; seeds in pairs, wings parallel or slightly spreading, drop in autumn; bark on trunks gray, unevenly furrowed.
RED MAPLE <i>Acer rubrum</i>		Leaves 3-5" long, about as wide, usually with 3 pointed lobes, margin fine-toothed; leaf stem red; seeds in pairs, wings at right-angles, drop late spring; bark on twigs red, on trunk gray, flaky.
SILVER MAPLE <i>Acer saccharinum</i>		Leaves 3-6" long; about as wide, deeply cut into 5 pointed lobes, margins coarse-toothed, silvery green underneath; seeds in pairs, wings in-curved, drop in late spring; bark on trunk light gray to brown, flaky.
NORWAY MAPLE <i>Acer platanoides</i>		Leaves 5-8" long, often wider, with 5 pointed lobes and scattered secondary points; leaf stem with milky juice; seeds in pairs, wings wide-spread, drop in autumn; bark on trunk dark brown, finely furrowed. Common street tree. Not native.
CATALPA <i>Catalpa speciosa</i>		Leaves opposite or whorled, 8-12" long, heart-shaped, margin smooth; flowers white, showy; seeds in brown, slender, cigar-shaped pods 10-20" long; bark red-brown to gray-brown; broken into thick scales. Not native.

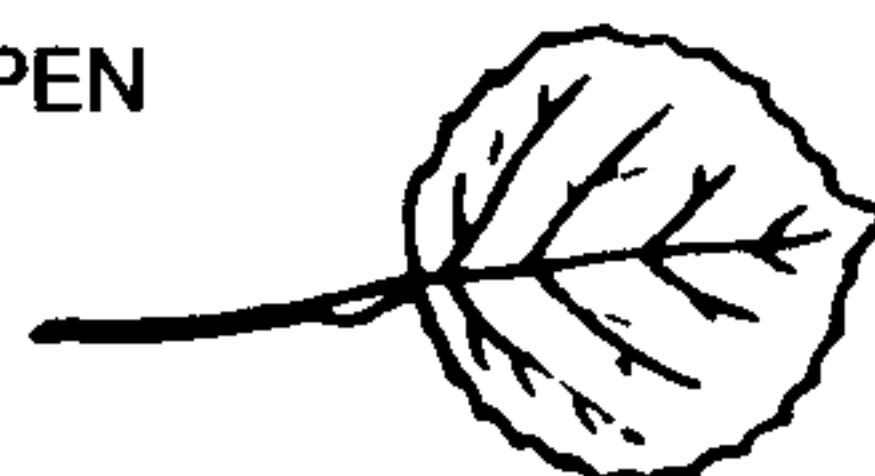


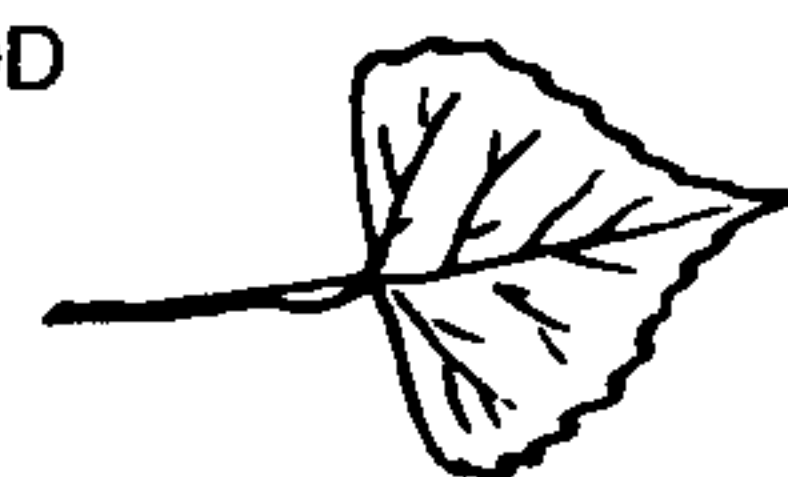

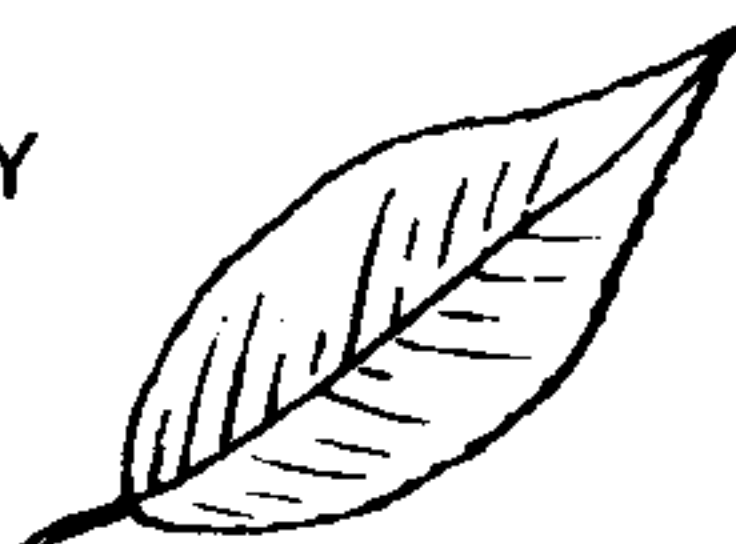
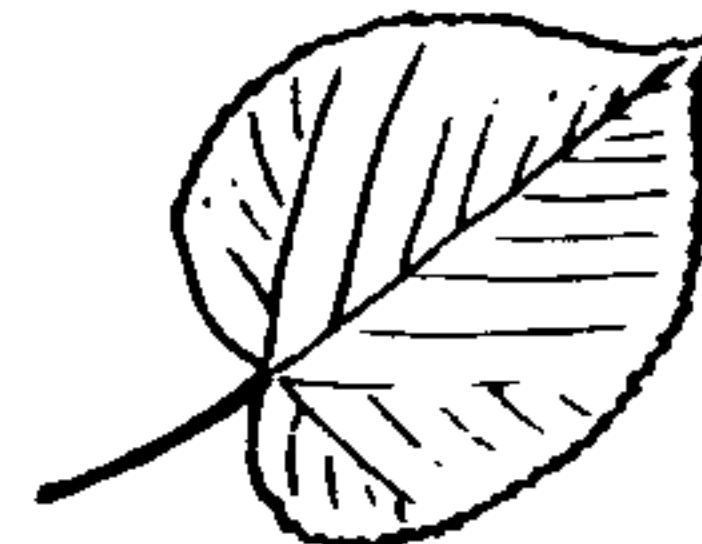

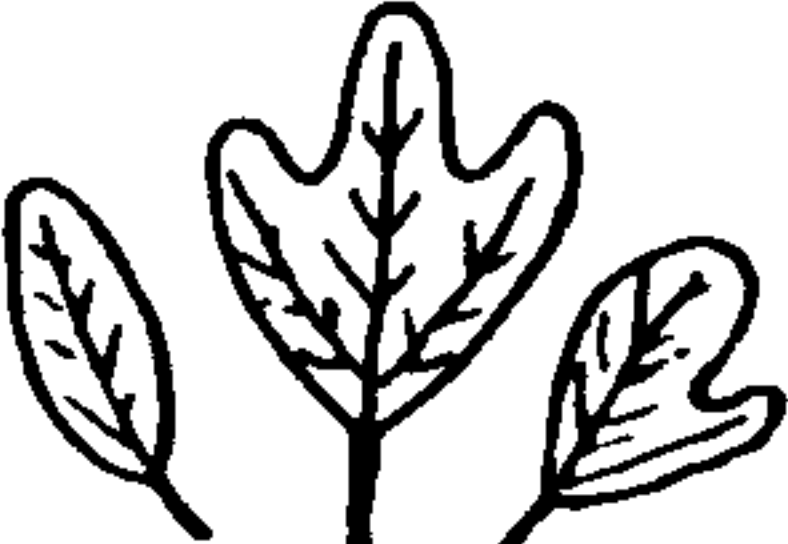

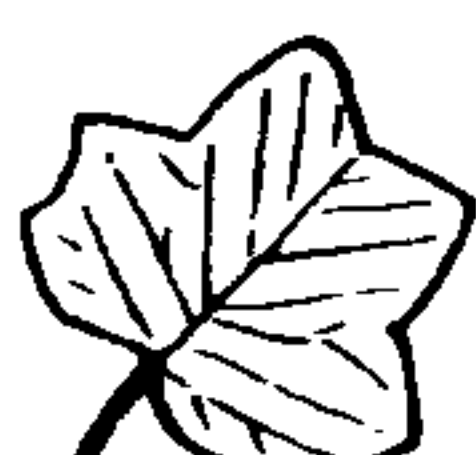
B. Leaves Opposite and Compound

WHITE ASH <i>Fraxinus americana</i>		Leaves with usually 7 short-stalked, smooth or slightly toothed leaflets; seeds with paddle-shaped wings, 1-2" long; bark ash-gray with narrow, interlacing ridges and wedge-shaped grooves. (BLACK ASH - <i>F. nigra</i> : leaflets not stalked.)
BOX ELDER <i>Acer negundo</i>		Leaves with 3-5 oval, pointed leaflets, margins nearly smooth or coarsely toothed; paired seeds in persistent hanging clusters, wings in-curved, mature in early summer; bark light to dark brown, shallowly furrowed.
HORSE-CHESTNUT <i>Aesculus hippocastanum</i>		Leaves composed of 7 whorled, tapered leaflets, 5-7" long, margins bluntly toothed, stems grooved; flowers white, in showy upright clusters; seeds large, shiny, red-brown, in a thick spiny cover; bark dark brown, broken into thin plates. Not native.

C. Leaves Alternate and Simple

WHITE BIRCH <i>Betula papyrifera</i>		Leaves 2-4" long, oval, pointed, with rounded or tapered base, margins double-toothed; bark on twigs and young tree dark red, older trunks cream or chalky white, peeling in papery shreds or sheets.
YELLOW BIRCH <i>Betula allenhaniensis</i>		Leaves 3-5" long, oval, pointed, with rounded or heart-shaped base, margins double-toothed, winter-green odor when crushed; young bark silvery yellow with papery curls, old trunks gray with ragged plates.

C. Leaves Alternate and Simple (Continued)

QUAKING ASPEN <i>Populus tremuloides</i>		Leaves nearly round, with a small tip, margins finely toothed; leaf stems flattened; seeds in hanging tassels or catkins; bark whitish to yellow-green, smooth, with black branch scars, rough and furrowed at base.
LARGETOOTH ASPEN <i>Populus grandidentata</i>		Leaves oval, pointed, margins prominently wavy-toothed; leaf stems flattened; seeds in hanging tassels or catkins; bark olive green to brownish green, smooth, with black branch scars, rough and furrowed at base.
BALM-OF-GILEAD <i>Populus balsamifera</i>		Leaves taper pointed with rounded base, margins finely toothed, rusty flecks on under side; leaf stems not flattened; seeds in hanging tassels or catkins; bark dark gray, rough, with flattened ridges.
COTTONWOOD <i>Populus deltoides</i>		Leaves triangular with tapered point and flat base; margins coarsely toothed; leaf stems flattened; seeds in hanging tassels or catkins; bark light brown to gray, with deep grooves and prominent ridges.
WILLOW <i>Salix species</i>		Leaves narrow, very long pointed with finely toothed margins; seeds in hanging tassels or catkins; bark on young branches yellow to green, shiny, on old trunks brown to black, with long ridges and deep grooves. Many species with generally similar characteristics.
BLACK CHERRY <i>Prunus serotina</i>		Leaves 3-6" long, narrow, taper pointed, margins finely toothed with sharp, in-curving teeth; fruit dark red, pea-sized, edible berries clustered on drooping stems; bark brown to black, broken into thin scales.
BASSWOOD <i>Tilia americana</i>		Leaves 5-6" long, broadly heart-shaped with unequal sides, margins sharply toothed; pea-sized seeds hang from center of narrow-leaf like structure; bark dark gray, compact, with shallow grooves and narrow parallel ridges.
AMERICAN ELM <i>Ulmus americana</i>		Leaves 4-6" long, oval, taper-pointed, base lop-sided, margins coarsely double-toothed; bark dark gray, with flat, scaly ridges, and alternate light and dark corky layers; arching branches give tree "urn" shape. (SLIPPERY ELM - <i>U. rubra</i> : leaves sandpaper rough; bark without alternate layers.)
SASSAFRAS <i>Sassafras albidum</i>		Leaves vary in shape from oval to those with 2 or 3 distinct lobes; leaves and twigs spicy-fragrant when crushed; fruit a dark blue berry; bark on twigs bright green, on trunk reddish brown with broad, flat ridges and deep grooves.
SYCAMORE <i>Platanus occidentalis</i>		Leaves up to 10" wide, with 3-5 broad, pointed lobes; leaf stem hollowed at base; seeds in round dangling heads; bark mottled, brown scales flake off to expose tan, pale green or creamy white smooth underbark.
TULIP POPLAR <i>Liriodendron tulipifera</i>		Leaves 4-6" long, symmetrical, usually 4-lobed, wide base, with a broad notch at top, margins smooth; flowers tulip-like, yellow-green; bark dark gray, deeply furrowed with prominent vertical, pointed ridges.